



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/578,195

05/04/2006

Thomas Tiller

5837

6739

26936 7590 10/27/2008  
SHOEMAKER AND MATTARE, LTD  
10 POST OFFICE ROAD - SUITE 110  
SILVER SPRING, MD 20910

EXAMINER

MARTIN, LAURA E

ART UNIT

PAPER NUMBER

2853

MAIL DATE

DELIVERY MODE

10/27/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,195	<b>Applicant(s)</b> TILLER ET AL.	
	<b>Examiner</b> LAURA E. MARTIN	<b>Art Unit</b> 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 37-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 37-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6 October 2008 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 37 and 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siddiqui (US 5939468 A) in view of Houle (US 6513921 B1).

#### **Siddiqui discloses the following claim limitations:**

As per claim 37: at least one binder in an amount between 4 to 20 wt% of the overall composition (column 12, line 60 - column 13, line 7); at least one fast-drying solvent in an amount from 70 to 90 wt% of the overall composition (column 12, line 60 - column 13, line 7); at least one marking compound absorbing light outside the visible range in an amount from 0.001 to 5 wt% (column 12, line 60 – column 13, line 7)

As per claim 40: the fast-drying solvent is selected from the group of ketones consisting of acetone and methyl ethyl ketone (column 12, line 60 – column 13, line 3).

As per claim 41: the ink is free of water (column 12, line 60 - column 13, line 7).

As per claim 42: the marking compound is selected from the group of dyes which do not show absorbance in the visible range of the electromagnetic spectrum, said group consisting of UV markers, optical brighteners, rare earth chelates, NIR dyes, and laser NIR dyes (column 12, line 60 - column 13, line 7).

As per claim 43: a securing marking printed with an inkjet printing ink (column 1, lines 37-55).

**Siddiqui does not disclose the following claim limitations:**

As per claim 37: at least one non-particulate matting compound in an amount between 1 to 8 wt% of the overall composition, wherein the matting compound has a higher boiling point than the fast drying solvent, and where in the binder is insoluble in the matting compound.

As per claim 39: the matting compound is selected from the group consisting of the diols and triols of short chain alkyl compounds having a chain length of two to six carbon atoms, said group consisting of pentanediol, butanediol, ethylenediol, propanediol, glycerol, and their corresponding isomers.

**Houle et al. disclose the following claim limitations:**

As per claim 37: at least one non-particulate matting compound in an amount between 1 to 8 wt% of the overall composition (column 22, lines 15-30), wherein the matting compound has a higher boiling point than the fast drying solvent, and where in

Art Unit: 2853

the binder is insoluble in the matting compound (it is obvious to one of ordinary skill in the art that if the matting compound, fast drying solvent, and binder are the same as those taught in the applicant's specification, they would have similar qualities as those ingredients taught in the specification).

As per claim 39: the matting compound is selected from the group consisting of the diols and triols of short chain alkyl compounds having a chain length of two to six carbon atoms, said group consisting of pentanediol, butanediol, ethylenediol, propanediol, glycerol, and their corresponding isomers (column 22, lines 15-30).

As per claim 43: a securing marking printed with an inkjet printing ink (column 1, lines 43-60).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink taught by Siddiqui with the disclosure of Houle in order to create an invisible ink that is compatible with inkjet printing systems and is waterfast, lightfast, and capable of producing high resolution images.

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siddiqui (US 5939468 A) and Houle (US 6513921 B1), and further in view of Subbaraman et al. (US 5674923 A).

**Siddiqui as modified disclose the following claim limitations:**

The ink taught in claim 37.

**Siddiqui does not disclose the following claim limitations:**

A binder selected from the group of polymers consisting of vinyl chloride and vinyl acetate copolymers, nitrocellulose, and polyvinyl butyral.

**Subbaraman et al. disclose the following claim limitations:**

A binder selected from the group of polymers consisting of vinyl chloride and vinyl acetate copolymers, nitrocellulose, and polyvinyl butyral (column 12, lines 15-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink set taught by Siddiqui as modified with the ink taught by Subbaraman et al. in order to provide a stable ink with improved properties of opacity, adhesion, and machine compatibility.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA E. MARTIN whose telephone number is (571)272-2160. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. E. M./  
Examiner, Art Unit 2853

Laura E. Martin

/Manish S. Shah/  
Primary Examiner, Art Unit 2853